United States Army

Logistics Transformation Agency

CLOE STRATEGY & IMPLEMENTATO

Decision Briefing for

G-4 Army

18 Dec 2003

Materiel Logistics Division
Logistics Transformation Agency
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Purpose – Why We Are Here!

- **Obtain G-4 Approval Of CLOE Implementation Strategy**
- **Review:**
  - **Execution to Date**
    - **CLOE v1.0 – SCBT Systems Architecture**
    - **Enterprise Integration**
    - **Aviation**
    - **FCS**
  - **G-4 Concerns**
  - **Implementation Going Forward**
  - **Governance**
  - **Enforcement**
  - **Recommendations**

CSA Focus Areas

- **Current to Future Force**
- **Army Aviation**
- **The Network**

G-4 Focus Areas

- **"Connect" Our Logisticians**
- **Modernize Theater Distribution**
- **Improve Force Reception**
- **Integrate the Supply Chain**

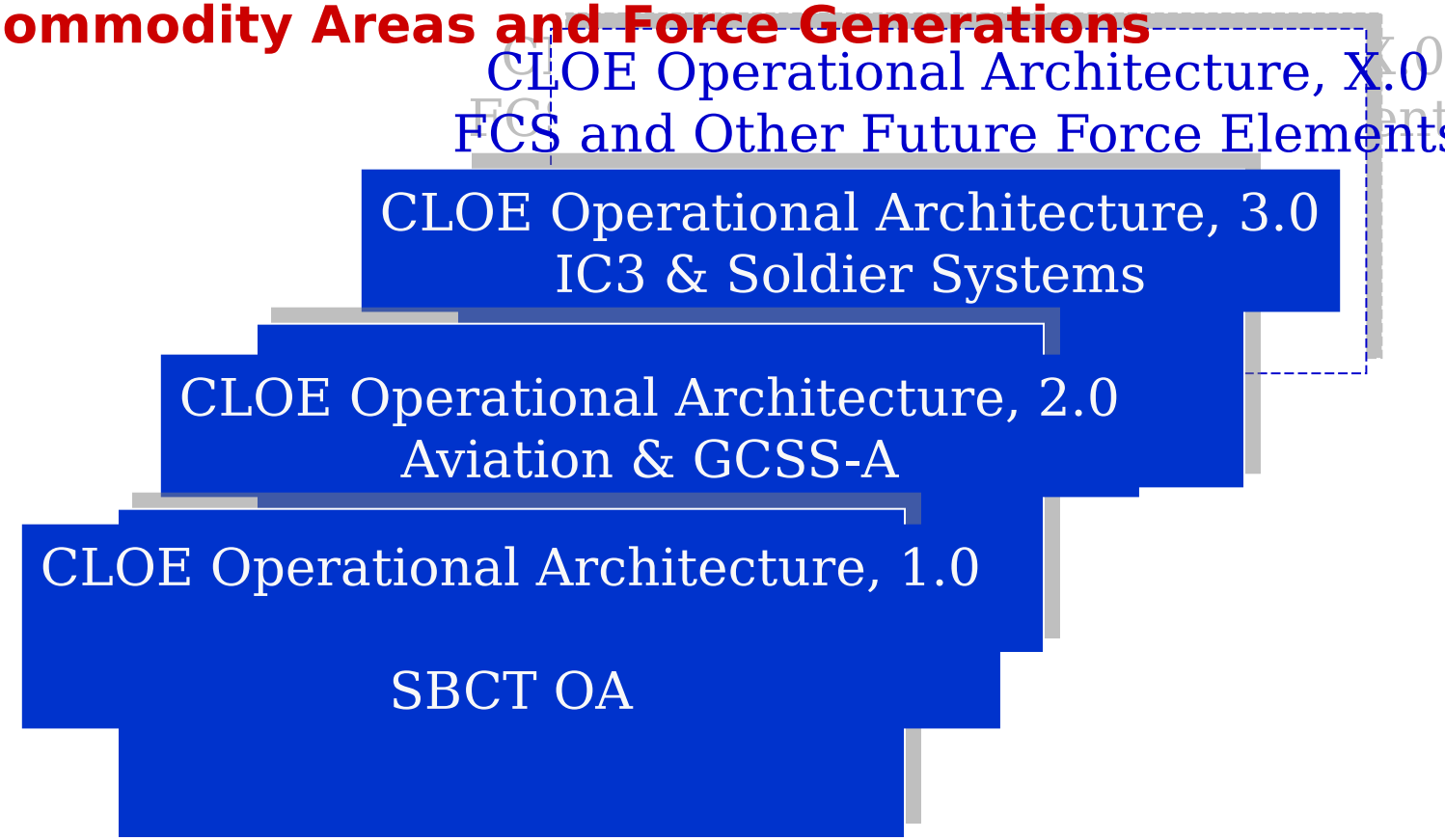
CLOE Operational Architecture:

Integrate & Upgrade Current Force Sustainment Capability

Lay The Groundwork For Future Force Interoperability

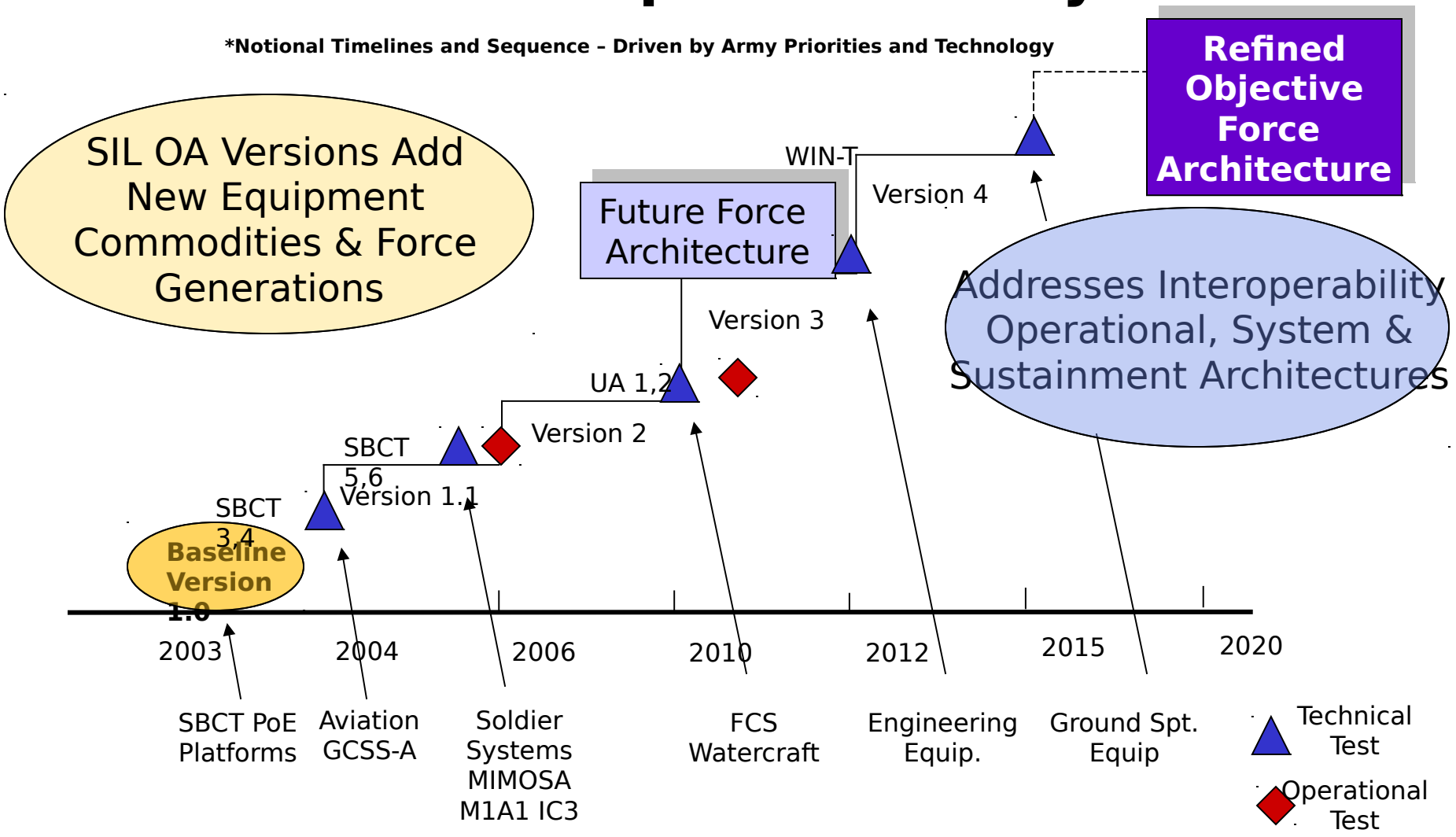
CLOE OA Development

The CLOE OA Starts With the SBCT PoE Operational Architecture and Adds Scope Until It Encompasses All Commodity Areas and Force Generations



CLOE Implementation Continuous Improvement Cycle*

*Notional Timelines and Sequence – Driven by Army Priorities and Technology

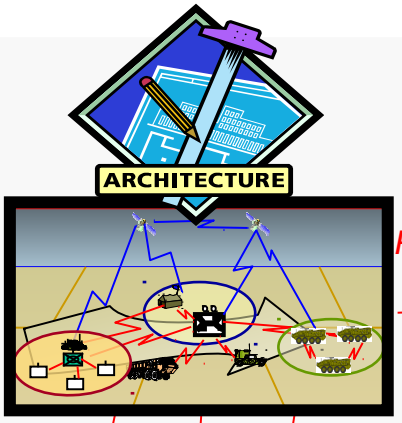


CLOE Architecture v1.0 – Capabilities

Available Fall 2004 with Existing Technologies

Network Enabled	Networked BDE & Below operations • Platform Networked – Sensors, enablers, middleware, protocols • STAMIS Networked – CAISI, ULLS, SAMS, SARSS, PMM • Communications Networked – FBCB2, MTS, WI-FI
Sensor Based & Linked	Embedded sensor data focused on tactical level • Integrated with mission planning • Triggers sustainment and support operations • Combined to provide operational status and logistics SA • Future – Above tactical level
Distributed Processing	Platform Data = Intelligence and Knowledge • On-Platform Processing – Embedded Health Management System • FBCB2 Processing – Fuel, Ammo diagnostics Status • Off Platform Processing – PMM provide CBM & Fleet Status • National Level data stored in PMM until Data Hub is in place
Reach as Required	BSA Tactical Operations Center • CDR's & Logisticians – Drill Down Capability • CRT & FMC – Remote Diagnostic Capability • Future – Linked to Data Hub, BCS3 and WIN-T

CLOE Architecture v1.0 - Objectives & Ground Rules



Ground Rules

Develop an operational architecture that at any point in time enables sustainment *interoperability* of a mixture of *force generations* on the battlefield

Implement *anticipatory logistics* actions and *condition-based maintenance* practices in a networked environment using *existing STAMIS*. CLOE is an evolving environment of systems integration and interoperability

Objectives

More Responsive

A new way of Support

Technology Enabled

Capabilities Based

Leverage existing current force platform sensor suites by developing a *health management system* and a common platform architecture that incorporates *integrated enablers*, COTS Technology, and Condition-Based Maintenance. Ensures *doctrine and technology compatibility*

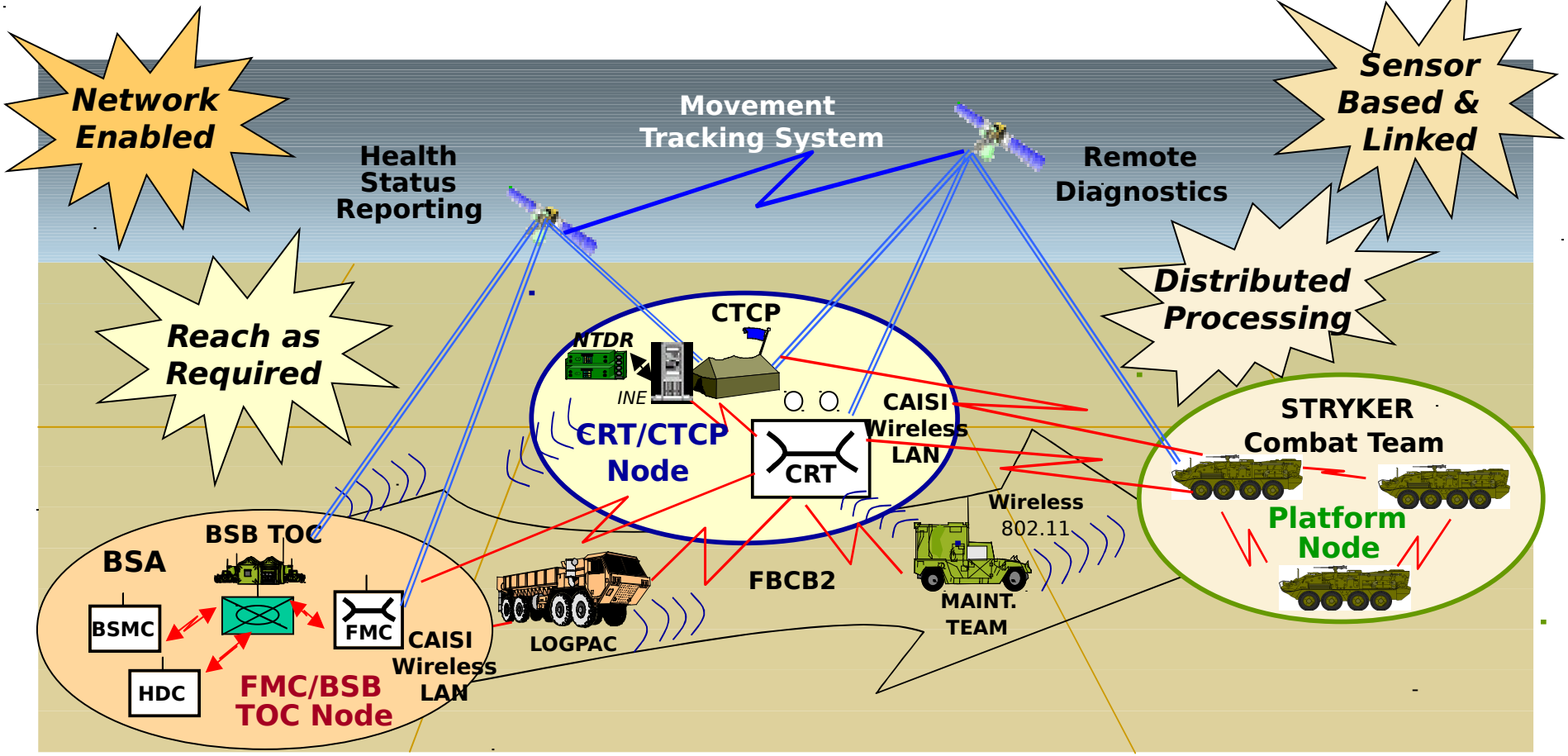
Provide *Logistics Situational Awareness* to the combatant commander and connect the logisticians by providing a common *logistics operational picture* in near real time *using existing communication devices* and a *drill down capability*

SBCT PoE Participants

- **Army Organizations**
  - **DCS G-4/Logistics Transformation Agency (Lead)**
  - **DCS G-6, DCS G-3, DCS G-8**
  - **CASCOM**
  - **AMC**
  - **PM Brigade Combat Team**
  - **PM Force XXI Battle Command Brigade and Below**
  - **PM Logistics Information Systems**
  - **PM Movement Tracking System**
  - **PM Heavy Tactical Vehicles**
  - **PM Medium Tactical Vehicles**
  - **PM Light Tactical Vehicles**
  - **PM Test, Measurement, and Diagnostic Equipment**
  - **Tank Automotive Command**
  - **National Automotive Center**
- **Developers**
  - **PNNL – LMI**
  - **IBM – ComTech**
  - **GDLS – ICRC**
  - **Northrup Grumman – DriverTech**
  - **SAIC – CSC**
  - **O'Neil Associates**

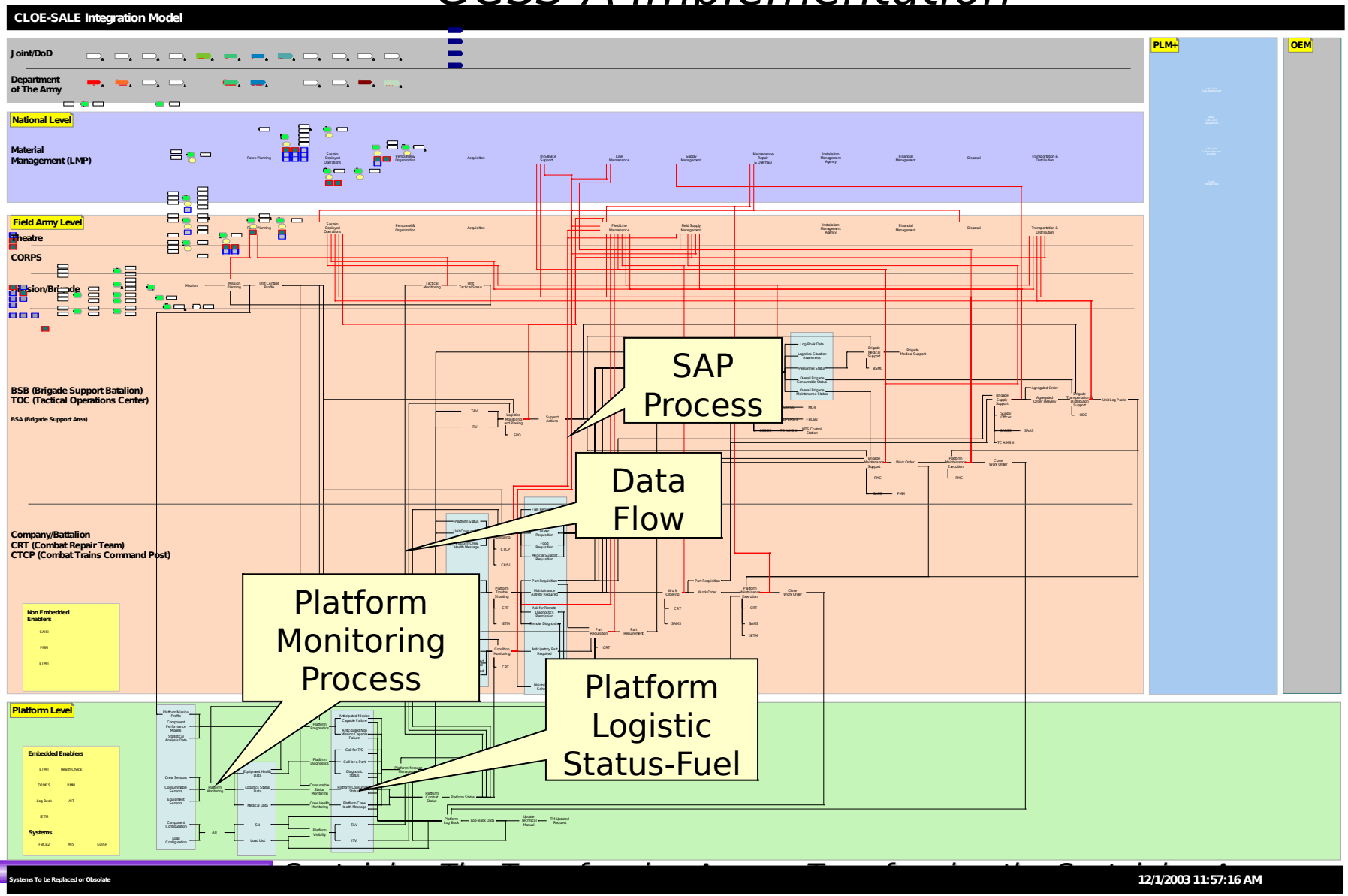
SBCT POE Operational Architecture

Is the aggregation of the SBCT missions, functions, tasks, & business rules



SBCT O&O | FM 3-21 & FM 4-97 | ***Focused on BDE & Below Operations*** | EDAPS Synchronized Concepts | SBCT MTO&E

The CLOE-SALE Integration Model to Support GCSS-A Implementation



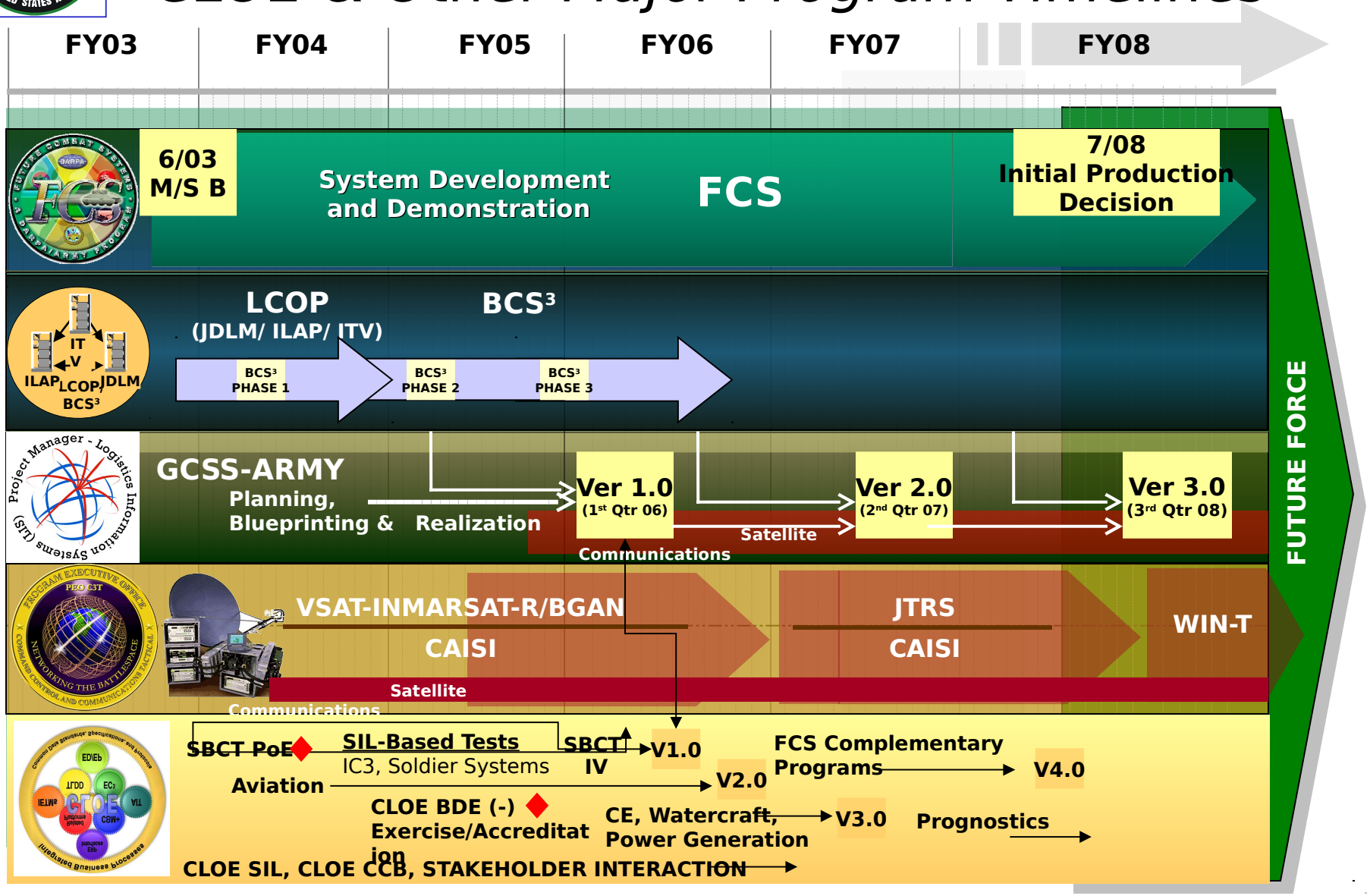
Ongoing CLOE Coordination, Cont.

- **FCS Coordination**
  - Draft MOA For CLOE Assistance To FCS For Sustainment Interoperability Of FCS Complementary Programs
  - Participating In FCS Sustainment And Log Products IPTs
  - Jointly Identified And Mapped Milestone Schedules
  - Programs For PS-MRS* / LDSS** And CLOE Milestone Plans
  - Participating In PS-MRS And LDSS Technical Interchange Meetings

- **Aviation Coordination**
  - Draft MOA For CLOE Assistance To PEO-Aviation In Developing A Common Tactical Aviation Sustainment Architecture
  - Active Technical Exchanges Between CLOE Technical Team and Aviation PMs
  - Agreement With Aviation PEO and PMs to Map The Consensus Aviation Architecture Into The CLOE OA

*PS-MRS – Platform-Soldier Mission Readiness System;
** LDSS - Logistics Decision Support System

CLOE & Other Major Program Timelines



Addressing G-4 Concerns

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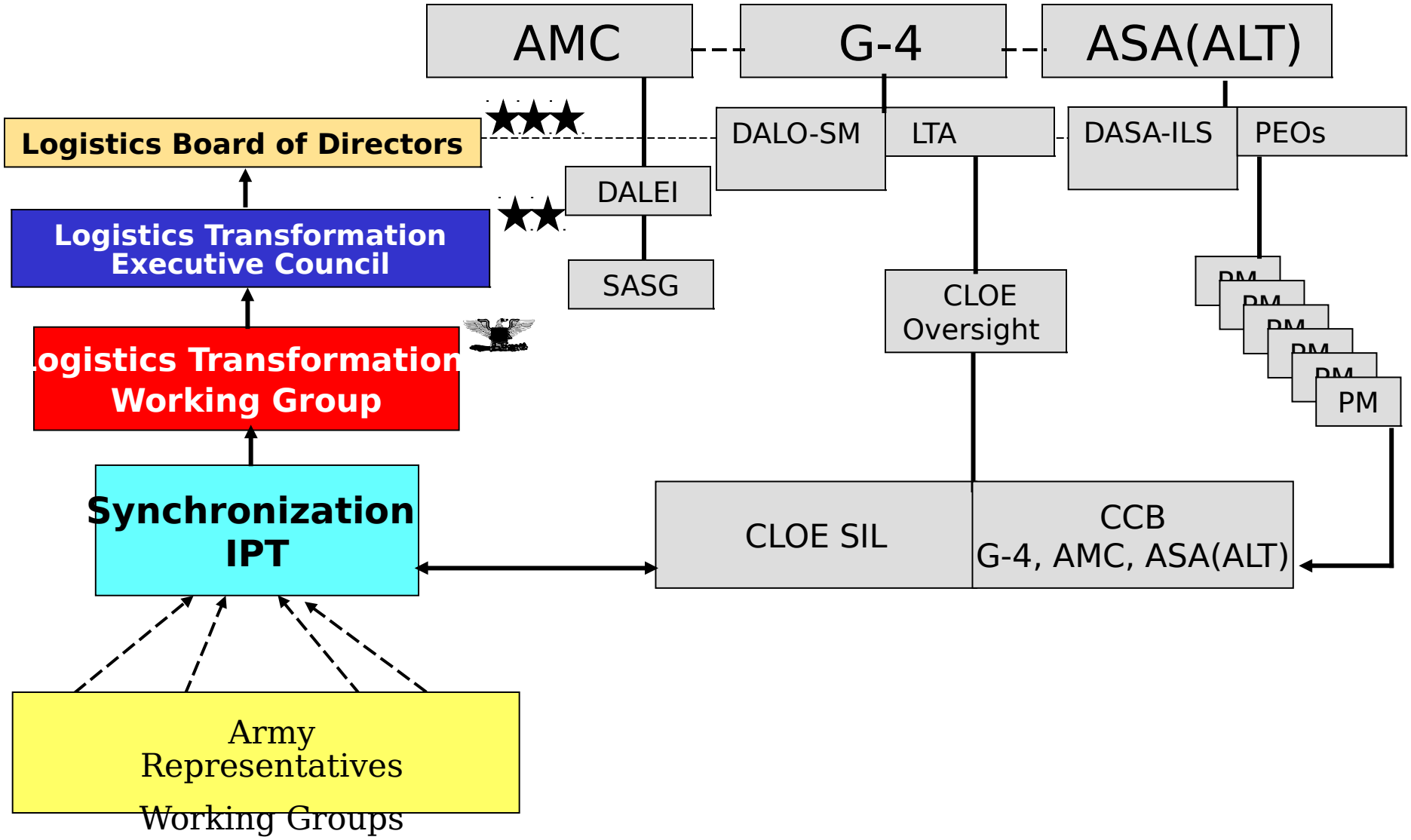
- **No Single Agency Is Responsible/Nobody Has Been Told NO**
  - **Three CLOE GOSCs and Policy Memo Establish CLOE As a Requirement With G-4 Lead**
  - **ORDs and Policy Have Already Been Published**
  - **Governance / Enforcement an Issue**
  - **PMs and Staff Have Rallied to CLOE Without Enforcement Mechanism in Place**
- **CLOE Aspires to Work With MTS and FBCB2, but These Systems Are Point Solutions**
  - **CLOE Ground Rule-work With What Is Available Today (FBCB2, MTS).**
  - **Spiral Development for What Is Available Tomorrow (JTRS, WIN-T)**
  - **CLOE Modular Architecture Allows Plug and Play**
- **CLOE Should Wait for Enablers Like WIN-T**
  - **WIN-T Not Available Until 2012 – Need to Develop Infrastructure Now**
  - **Waiting for WIN-T to Mod Platforms Delays "Fix the Current Force" and "Connect the Logistician"**
  - **CLOE Is Working to Engage Full Range of Platforms and Systems by Spring 2004.**

CLOE Implementation Strategy

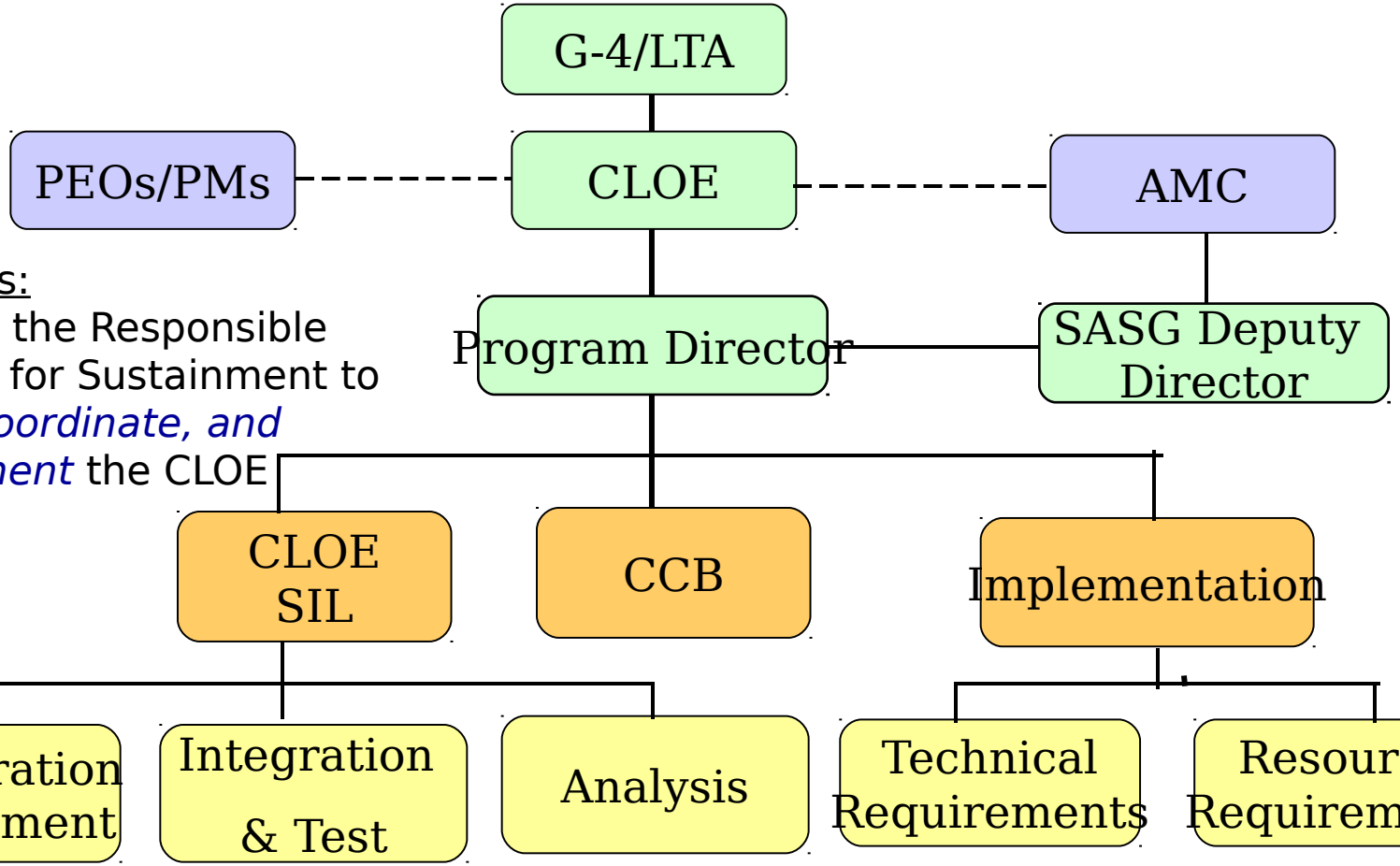
Implementation Strategy

- **Establish CLOE As an Official G-4 Program Within LTA AR 10-25**
- **Obtain Agreement With MILDEP ASA(ALT)**
  - **Accept CLOE Governance Structure**
  - **Support Funding in EE PEG**
  - **MOAs With PEOs**
- **Approve CLOE Funding Strategy**
- **CLOE Master Plan Signed by CSA/VCSA**
- **Establish SIL and CCB**

Proposed CLOE Governance



CLOE Organizational Concept



Policy states:

G-4, as the Responsible Official for Sustainment to *lead, coordinate, and implement* the CLOE

LTA has been assigned as the Executive Agent for CLOE

Enforcement Mechanisms

- **Incorporate CLOE Requirements Into System Strategy:**
  - **Concept Requirements Documents (CRDs)**
  - **Acquisition Strategy**
  - **Test & Evaluation Master Plan**
- **Formalize ASA(ALT) Policy Memo in Appropriate ARs**
- **Establish Tri-Chair Configuration Control Board (CCB)**
  - **DCS, G-4**
  - **AMC**
  - **ASA(ALT)**
- **CLOE Funding Oversight Through EE PEG and SS PEG**
- **Provide Guidance to PMs Via Approved Technical Integration Plan (TIP)**

RECOMMENDATIONS

- **G-4 Approve the CLOE Implementation Str**
- **G-4 Host Briefing to MILDEP ASA(ALT)**